

3.2 SYM_DistributeStateData (SYM_Dsd) Issues List

#	Issue	Resolution	Closed
1.	Where are derived parameters / general equations handled? Will there still be a difference between them in the CCS environment?	Some in DTF, some in FEP - this issue to go to Dsd. 11/15/96	*
2.	Config Mon sets in the current PRS allow users to define (in the database) an expected value. At regular, user-defined intervals the PRS software evaluates whether all of the mnemonics in the set match the expected value. If any do not match, an error message is generated and the names of up to the first 25 unmatching mnemonics are reported. Are the same types of capabilities required in CCS?		
3.	Is string conversion done within DSD?		
4.	Does any user of state data need to know when a parameter's value is static? How is static data detected within DSD? How is that fact communicated to other processes?		
5.	Is the concept of "data life" required within CCS? If so, how is it determined?		
6.	How will DSD be used to support testing activities without requiring a complete configuration of CCS equipment?		
7.	How will the requesting client process specify which of the available attributes (e.g., expected value, true value, compare status, TLM flags, etc.) are returned?	All data is returned; different methods extract specific data. See straw-person design - draft out on 11/15/96.	
8.	How do requesting clients specify the update rate (e.g., all points, changes only, nth point, t interval, etc.)?	Part of state data request. See straw-person design - draft out on 11/15/96.	*
9.	Does SYM make any additional determination of data quality over and above the FEP-assigned flag value?		
10.	Can spike values at the end of a downlink be filtered out?		
11.	Are any data smoothing or averaging functions provided by DSD?		
12.	What type of error message is provided to client processes if the requested data is not available (e.g., not in the current TLM format)?	3 bit error code, as described in straw-person design - draft out on 11/15/96.	*

13.	What are the performance requirements for DSD?		
14.	Does DSD have any responsibility to synchronize updates to (expected and true) state data?	No expectation of this at this time - DSD planned as basic storage/retrieval system only. - 10/24/96	*
15.	Does DSD “add value” to the data contained in its buffers (e.g., keep a local max/min value)?		
16.	Is state data stored anywhere in the system for a limited period of time? (REF has the need to analyze state data during the resolution of anomalies—may need data from other (non-anomalous) data points.) From where is this data retrieved? Likewise, REF may need to know other state values that may have been updated in during the time that elapsed since the detection of a fault and the beginning of REF analysis / response. Is there a local cache within CCS that contains this data? How big is the cache? Does it store n points for each mnemonic or all points for a t interval of time (e.g., one orbit)?	Cache functionality moved to MMD - 10/24/96	*
17.	How will telemetry format changes affect the contents of the state data table? How will format changes be distributed to client processes (i.e., how might the format change affect subscriptions for state data)?		
18.	What user interface method will be used to allow developers / testers to modify state table contents to simulate desired test conditions?	Combined with issue # 19. 11/15/96	*
19.	What actions can the user initiate through the GUI? <ul style="list-style-type: none"> • Clear subscription and start over • Starting/stopping DSD • Unit test and Integration test needs <ul style="list-style-type: none"> • Insert values into state data table 	<ul style="list-style-type: none"> • via State Data Request, see straw-person draft - 11/15/96. • • • Sub-bullet added from issue # 18 	
20.	Is the FEP broadcasting all points or changes only? If change only, then how does DSD handle client requests for subscribing to data at regular intervals (this implies DSD needs a data sampler)?	All points - confirmed by FEP on 11/15/96. This question no longer relevant.	*
21.	Does incoming data from the FEP arrive first at DSD and is then forwarded to DTF or the opposite (assume DSD gets it first)?	FEP Data goes to Dsd first. Dtf must subscribe to Dsd to then receive the data. (11/5/96)	*
22.	The FOF does not contain string converted data, yet the “replay” data does. How will the FOF - CDF format differences be handled?	From DTF Issues, #20	
23.	Is there an API with DTF for other clients to subscribe to state data changes inside DTF?	From DTF Issues, #8. DSD provides this connection.	*

	Can the user specify the desired update rate?	Specified as part of State Data request - see straw-person draft - 11/15/96.	
24.	What Legacy data/results should be stored, and for how long? How do "expired" ARU (or other) commands get deleted from the DSD?	Added 10/4/96 Refer to Legacy Reqt #10	
25.	How will DSD register an interest for particular events/commands with CMD? What will SYM need and thus Dsd need to register for?	TBD from CMD. Took 1 st cut at this with Frank Cole from CMD team on 11/08/96 - list was E-mailed to all SYM and CMD folks same day as part of SYM_CMD issues summary.	
26.	How will DSD register an interest for particular events with EVT? Things like SN status, Commands Committed Events from FEP,...	Modified 11/5/96	
27.	Does DSD perform any data quality determination prior to forwarding data to anyone?	Added 10/4/96	
28.	How will DSD handle the prioritization/performance of multiple clients?	Added 10/28/96	
29.	Will DSD use ISP, Rtserver, other COTS/GOTS, and how?	Current plan is to use an Rtdaq for each type of data to be received by Dsd (State Change Info, Telemetry, Events, Dtd State Updates); these Daqs would feed to an Rtserver which would route the data to user-defined RT clients within the SYM subsystem. These clients would package and forward the data as appropriate to the subscribers/requestors. M. Garvis expressed concern that the RT products could not keep up with the FOF for 40hz data. Will investigate.	
30.	How will Dsd Failover be handled?	Added 11/5/96	